AMENDMENTS

TO THE SPECIFICATION:

Please replace paragraph **[016]** with the following amended paragraph:

[016] An attempted solution to the problems associated with the AC coupling approach is shown in FIG. 3. In FIG. 3, a DC offset correction servo-loop 300 is shown with a negative feedback loop that loops around the baseband section 302 where the feedback loop may include a resistive and capacitive ("*RC*") integrator 304. The baseband section 302 may include a LPF 306 and a low-noise variable-gain amplifier 308 ("~~LNA-VGA~~LN-VGA"). The integrator 304 may include an amplifier 310 (such as an operational amplifier "Op Amp") with a pair of capacitors (each of value "C") 312 and 314 and a pair of resistors (each of value "R") 316 and 318 configured as an integrator.

Please replace paragraph **[034]** with the following amended paragraph:

[034] As an example of operation, the direct-conversion receiver 400 receives an input RF signal 422 from an input transmission line (not shown), which may be a strip-line, wire, coaxial cable, waveguide, fiber optic line (in the case of an optical signal) or other type of signal path from a receiving antenna. The input RE signal 422 is fed into the LNA 406, which amplifies the input RF signal 422 and produces an amplified RF signal 424 that is capable of driving the mixer 408. The mixer 408 then receives the amplified RF signal 424 and mixes it with a frequency reference signal 426 produced by the LO 410, where the frequency reference signal 426 has a frequency value that is approximately equal to the frequency of the input RF signal 422. The mixer 408 then produces a mixed output signal 428 that has been down-converted to

approximately baseband and may include numerous frequency harmonics. The mixed output signal 428 is then passed through the combiner 420 to the LPF 412 in the baseband section 404. The LPF 412 removes the unwanted frequency harmonics and passes the filtered signal 430 to the ~~VGA-LNA~~LN-VGA 414. The ~~VGA-LNA~~LN-VGA 414 adjusts the gain of the filtered signal 430 and produces the demodulated output signal 432, which may be passed to other circuitry (not shown) or components (not shown) in the direct-conversion receiver.

Please replace paragraph **[037]** with the following amended paragraph:

[037] In FIG. 5, an example implementation of the DC-offset Correction System 500 within the direct-conversion receiver 502 is shown. The direct-conversion receiver 502 may include the DC-offset Correction System 500 and a baseband section 504, ~~VGA-LNA~~LN-VGA 506, a mixer 508, and LO 510. The baseband section 504 may include a LPF 512 and ~~VGA-LNA~~LN-VGA 514 and the DC-offset Correction System 500 may include an integrator 516, attenuator 518, combiner 520 and optional controller 521. The integrator 516 may include an amplifier 522 (such as an Op Amp) with a pair of capacitors (each of value "C") 524 and 526 and a pair of resistors (each of value "R") 528 and 530 configured as an integrator. The DC-offset Correction System 500 is a DC feedback correction servo-loop capable of producing an attenuation coefficient k_{fb} within the DC feedback correction servo-loop with the attenuator 518.

Please replace paragraph **[038]** with the following amended paragraph:

[038] As an example of operation, the direct-conversion receiver 502 receives an input RF signal 532 from an input transmission line (not shown), which may be a stripline, wire, coaxial

cable, waveguide, fiber optic line (in the case of [[a]]an optical signal) or other type of signal path from a receiving antenna. The input RF signal 532 is fed into the ~~VGA-LNA~~LN-VGA 506, which amplifies the input RF signal 532 and produces an amplified RF signal 534 that is capable of driving the mixer 508. The mixer 508 then receives the amplified RF signal 534 and mixes it with a frequency reference signal 536 produced by the LO 510, where the frequency reference signal 536 has a frequency value that is approximately equal to the frequency of the input RF signal 532. The mixer 508 then produces a mixed output signal 538 that has been down-converted to approximately baseband and that typically includes numerous frequency harmonics. The mixed output signal 538 is then passed through the combiner 520 to the LPF 512 in the baseband section 504. The LPF 512 removes the unwanted frequency harmonics and passes the filtered signal 540 to the ~~VGA-LNA~~LN-VGA 514. The ~~VGA-LNA~~LN-VGA 514 adjusts the gain of the filtered signal 540 and produces the demodulated output signal 542 ~~which~~that may be passed to other circuitry (not shown) or components (not shown) in the direct-conversion receiver.